CLAIMS:

1. A method for a first communication device to performing authenticated distance measurement between said first communication device and a second communication device, wherein the first and the second communication device share a common secret and said common secret is used for performing the distance measurement between said first and said second communication device.

2. A method according to claim 1, wherein the authenticated distance measurement is performed according to the following steps,

- transmitting a first signal from the first communication device to the second communication device at a first time t1, said second communication device being adapted for receiving said first signal, generating a second signal by modifying the received first signal according to the common secret and transmitting the second signal to the first device,
- receiving the second signal at a second time t2,
- checking if the second signal has been modified according to the common secret,
- determining the distance between the first and the second communication device according to a time difference between t1 and t2.

3. A method according to claim 2, wherein the first signal is a spread spectrum signal.

4. A method according to any of the claims 2, wherein the step of checking if the second signal has been modified according to the common secret is performed by the steps of,

- generating a third signal by modifying the first signal according to the common secret,
- comparing the third signal with the received second signal.

5. A method according to any of the claims 2, wherein the first signal and the common secret are bit words and where the second signal comprises information being generated by performing an XOR between the bit words.

6. A method according to any of the claims 1, wherein the common secret has been shared before performing the distance measurement, the sharing being performed by the steps of,

- performing an authentication check from the first communication device on the second communication device, by checking whether said second communication device is compliant with a set of predefined compliance rules,
- if the second communication device is compliant, sharing said common secret by transmitting said secret to the second communication device.

7. A method according to claim 6, wherein the authentication check further comprises checking if the identification of the second device is compliant with an expected identification.

8. A method of determining whether data stored on a first communication device are to be accessed by a second communication device, the method comprising the step of performing a distance measurement between the first and the second communication device and checking whether said measured distance is within a predefined distance interval, wherein the distance measurement is an authenticated distance measurement according to claim 1.

9. A method according to claim 8, wherein the data stored on the first device are sent to the second device if it is determined that the data stored on the first device are to be accessed by the second device.

10. A method of determining whether data stored on a first communication device is to be accessed by a second communication device, the method comprising the step of performing a distance measurement between a third communication device and the second communication device and checking whether said measured distance is within a predefined distance interval, wherein the distance measurement is an authenticated distance measurement according to claim 1.

11. A communication device for performing authenticated distance measurement to a second communication device, where the communication device shares a common secret with the second communication device and where the communication device comprises means for measuring the distance to the second device using said common secret.

12. A communication device according to claim 11, wherein the device comprises,

- means for transmitting a first signal to a second communication device at a first time t1, said second communication device being adapted for receiving said first signal, generating a second signal by modifying the received first signal according to the common secret and transmitting the second signal,
- means for receiving the second signal at a second time t2,
- means for checking if the second signal has been modified according to the common secret,
- means for determining the distance between the first and the second communication device according to a time difference between t1 and t2.

13. An apparatus for playing back multimedia content comprising a communication device according to claim 11.